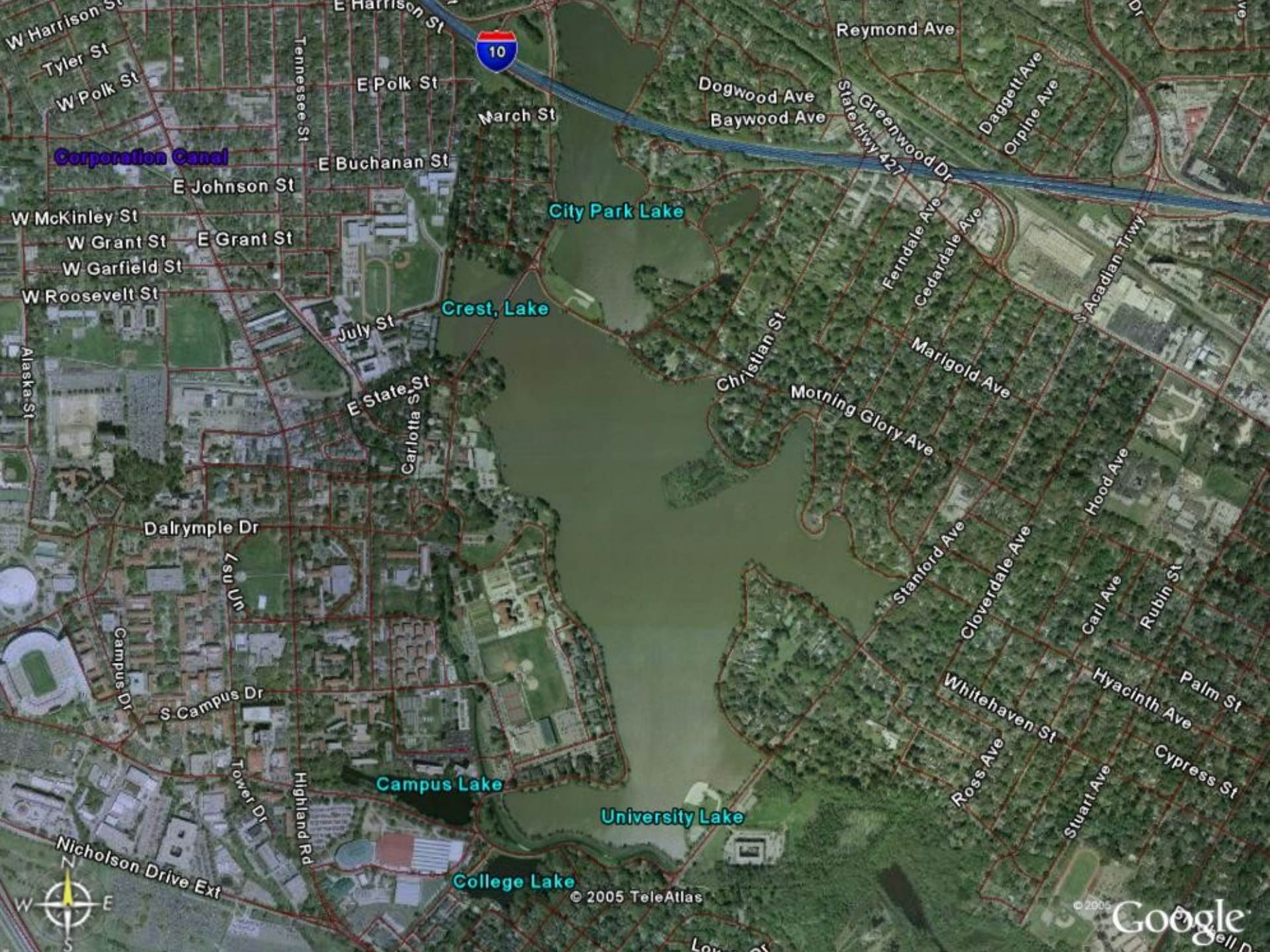




Corporation Canal

City Park Lake

Crest Lake

Campus Lake

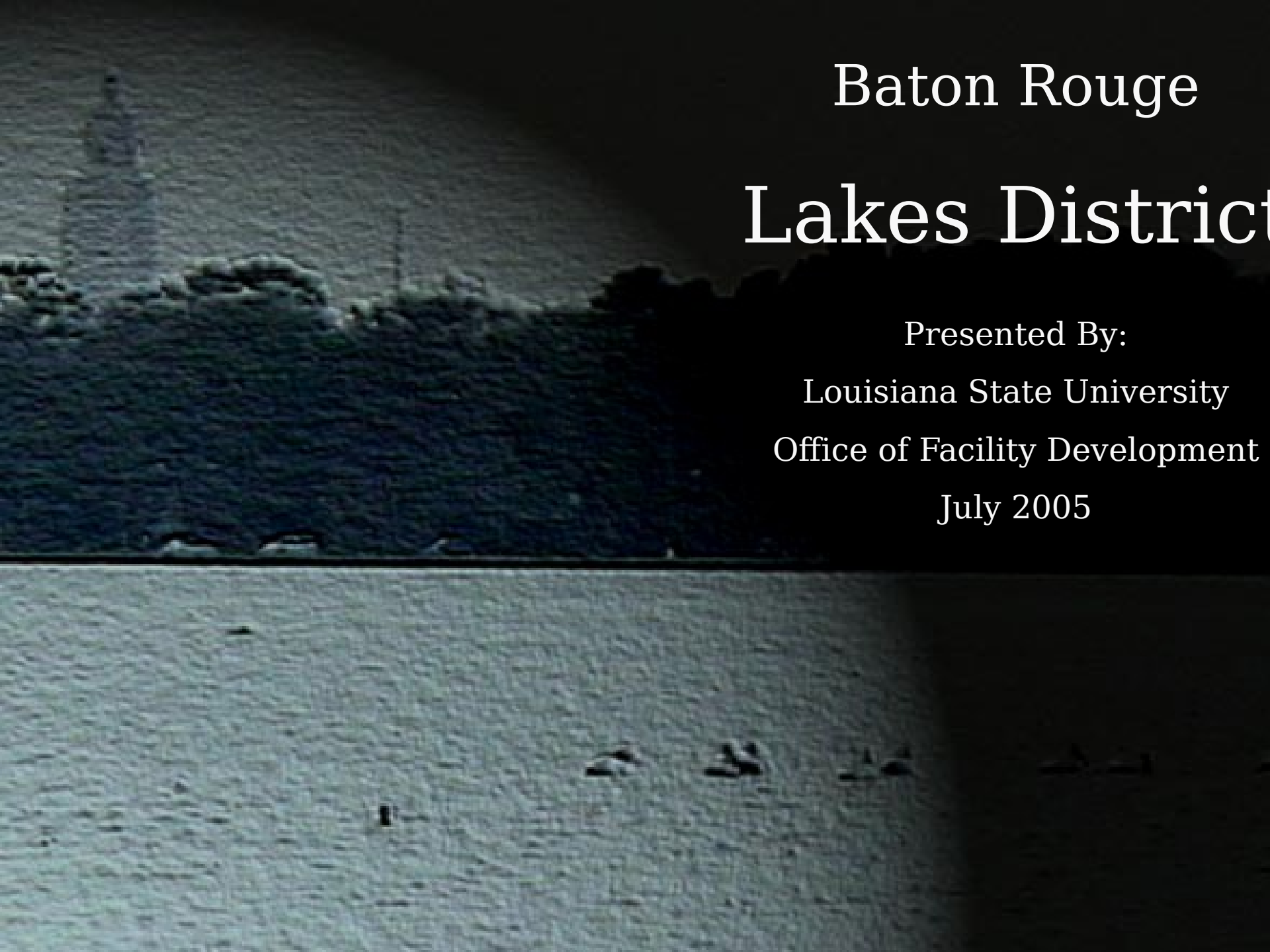
University Lake

College Lake



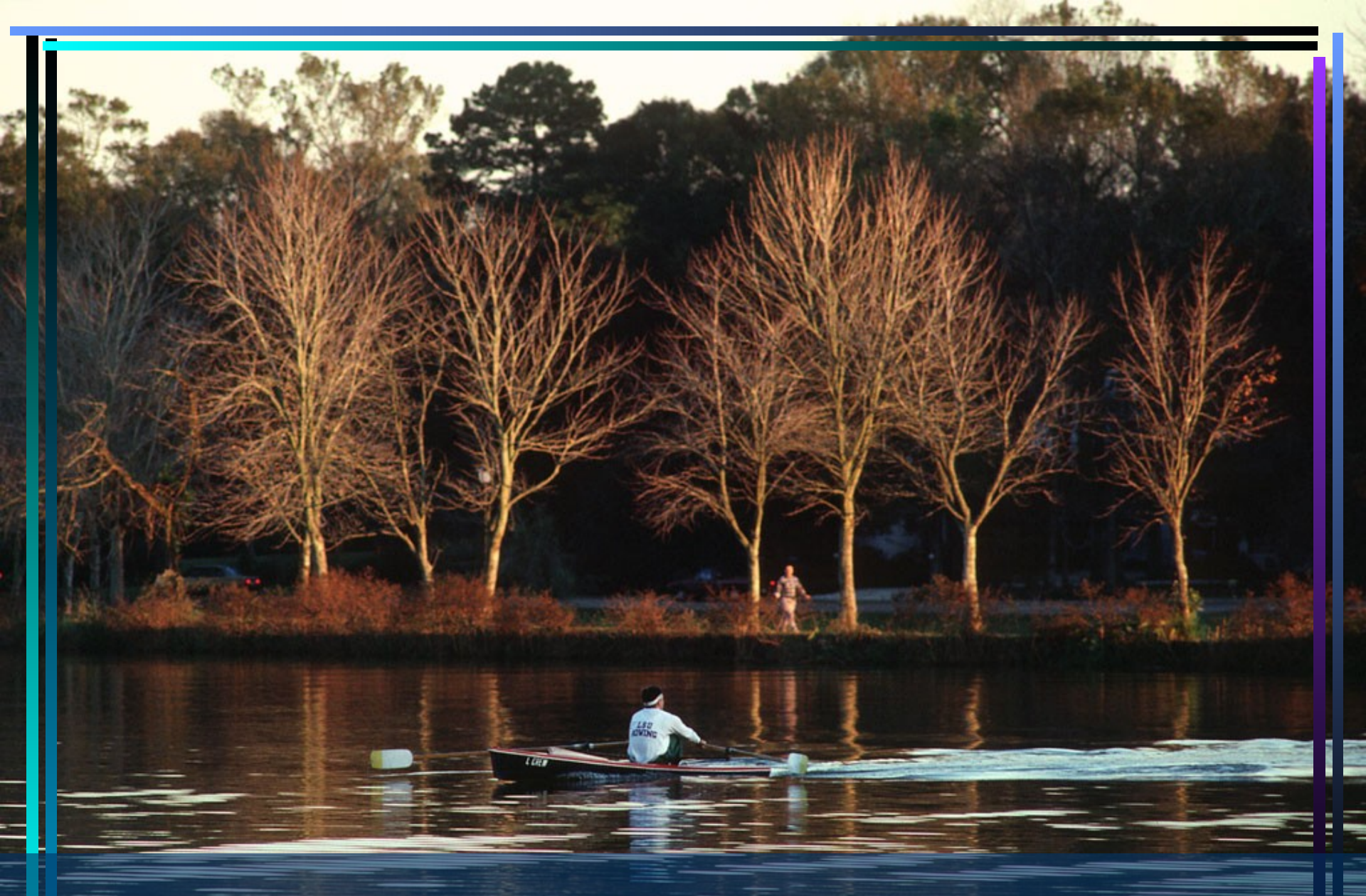
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Google



Baton Rouge Lakes District

Presented By:
Louisiana State University
Office of Facility Development
July 2005



**The Lakes District is a
Value To Our Community.....**

Water Sports and Recreation





Health and Fitness

Wildlife Habitat



An Environmental Resource

Fishing/Cultural Value





Outdoor Family Activities

Educational Opportunities



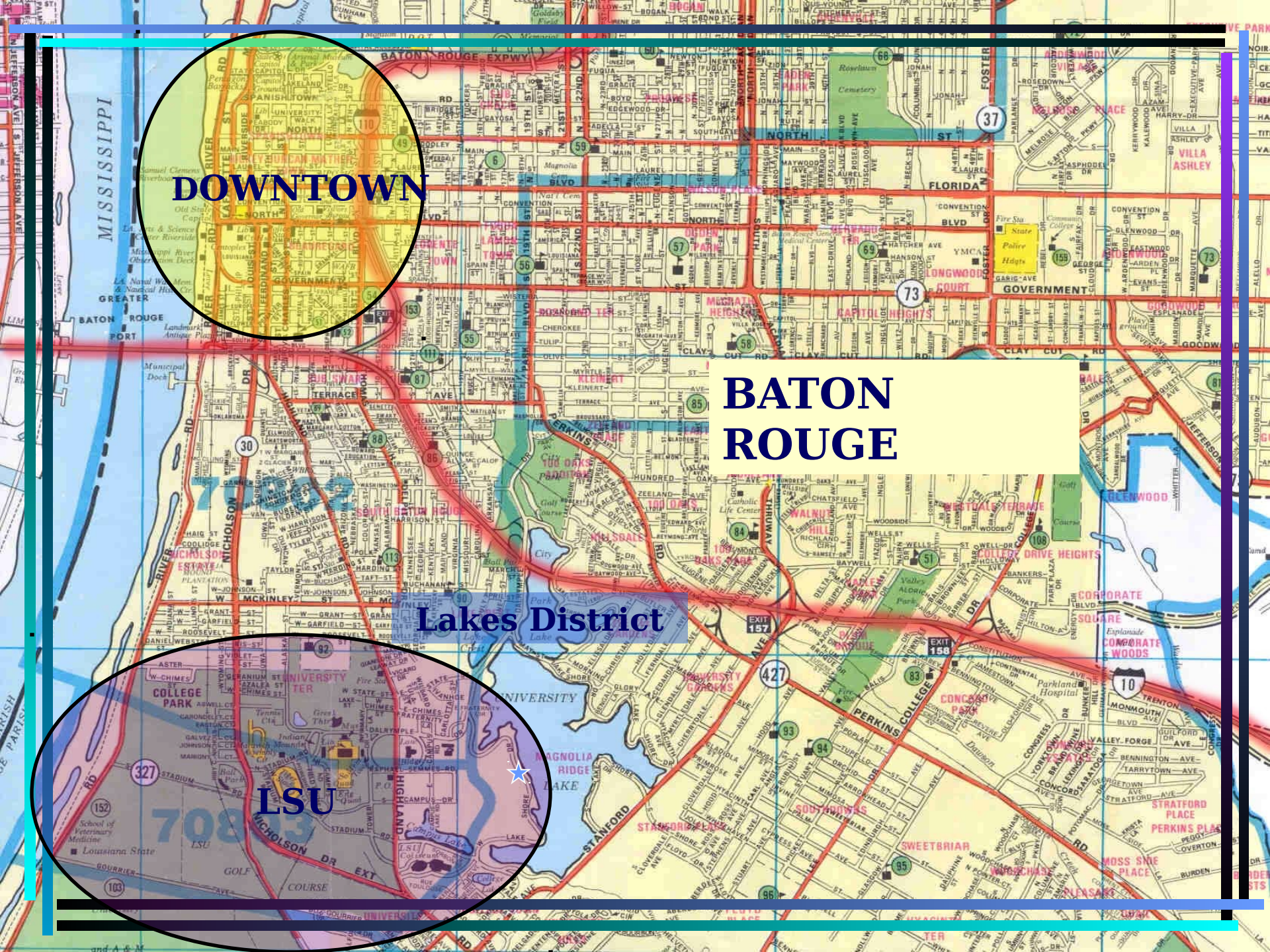
= Increased Quality of Life!!

DOWNTOWN

**BATON
ROUGE**

Lakes District

LSU





Dredging of University Lakes (1979-1983)



Submerged Stumps Created Unforeseen



Limited Dredging Occurred



Built up Low Lands
Adjacent to Stanford Ave.

Creation of Baton Rouge
Beach With dredged
Material

Problems We Face Today



General Problems We Face Today

- Lakes Repair
 - Very Shallow
 - Water Quality
 - Eutrophication
 - Eroded edges and failing banks
 - Failing drainage infrastructure
- Human Impacts / Trash / Aesthetics
- Limited Financial Resources

Very Shallow -Excessive Sediment Build Up



Water Quality Is Getting Worse!



Excessive
Nutrients

Fish Kill - 2003

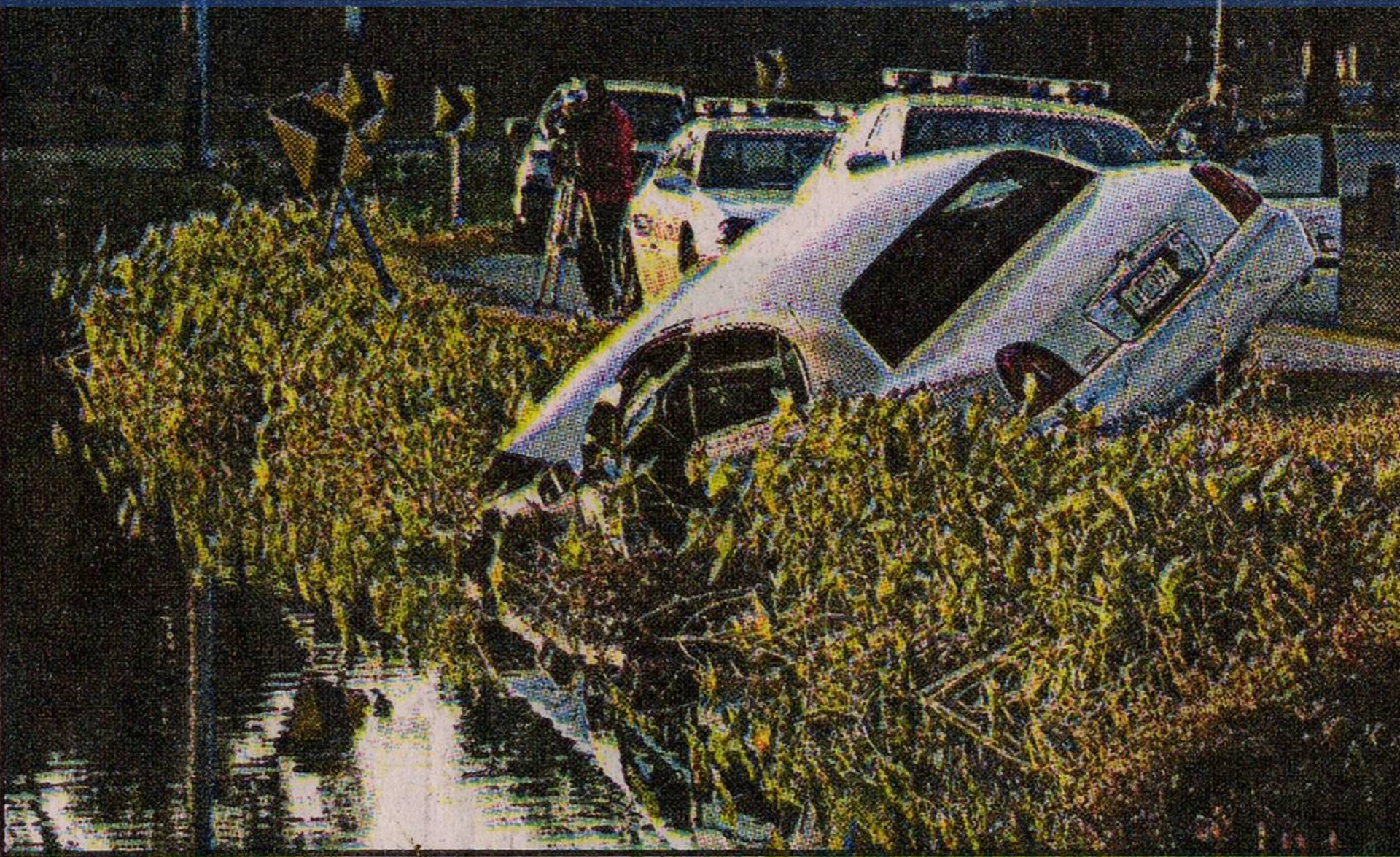


Practically an Annual



Eroding Banks –
Unsafe!

This Guy is having a **BAD DAY!!**



December 2003

Advocate staff photo by Mark Saltz

Failing Drainage Infrastructure





- Build up areas for recreational use
- Build up areas to stabilize Live Oak Trees

Safety Pinch-Points

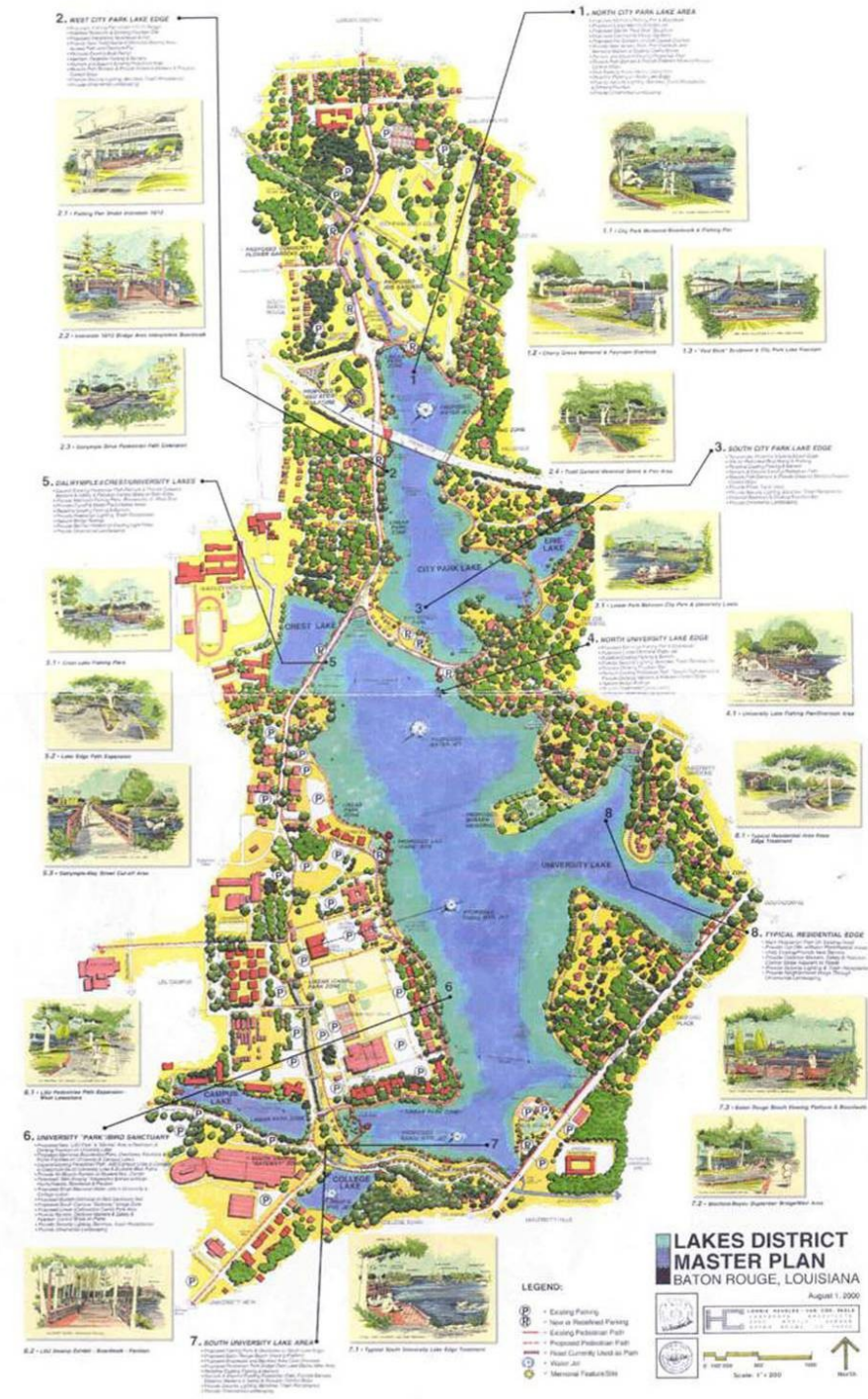




The Need Exists for
Improved Trails

The Lakes District Master Plan-Completed August 2000

*Recreational in nature only,
does not improve water
quality



So how do we address the problem?

- An aggressive eco-system restoration program to restore environmental balance and bring the lakes back to viable health and recreational potential.
- The City of Baton Rouge in coordination with LSU and BREC have requested assistance from the US Army Corps of Engineers to assist in restoring the University Lakes system.

***Lakes District
At Louisiana State University***

***Aquatic Ecosystem Restoration
Project***

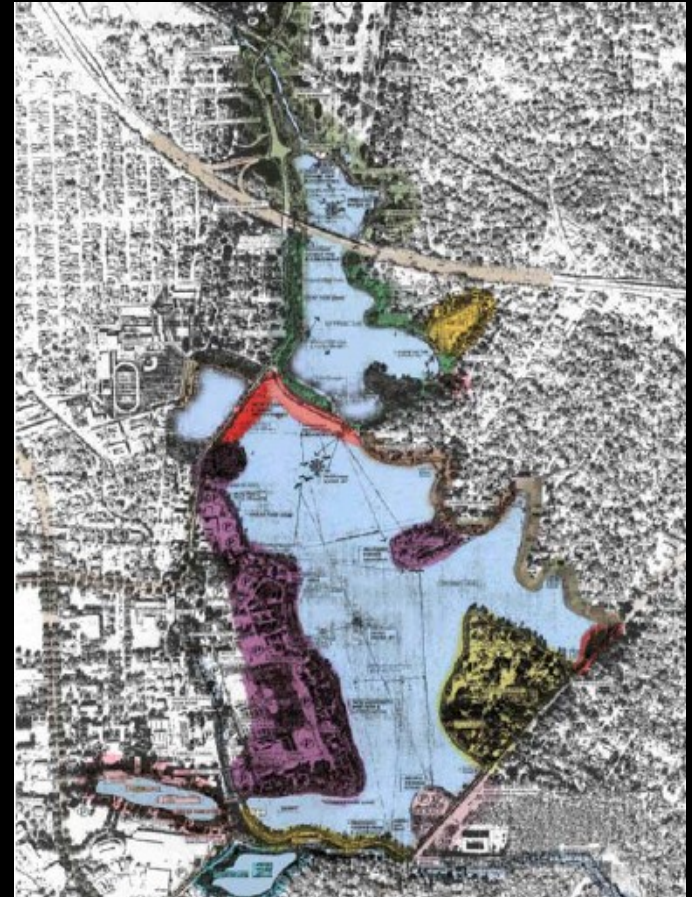
***Presented by
US Army Corps of Engineers, New Orleans District***

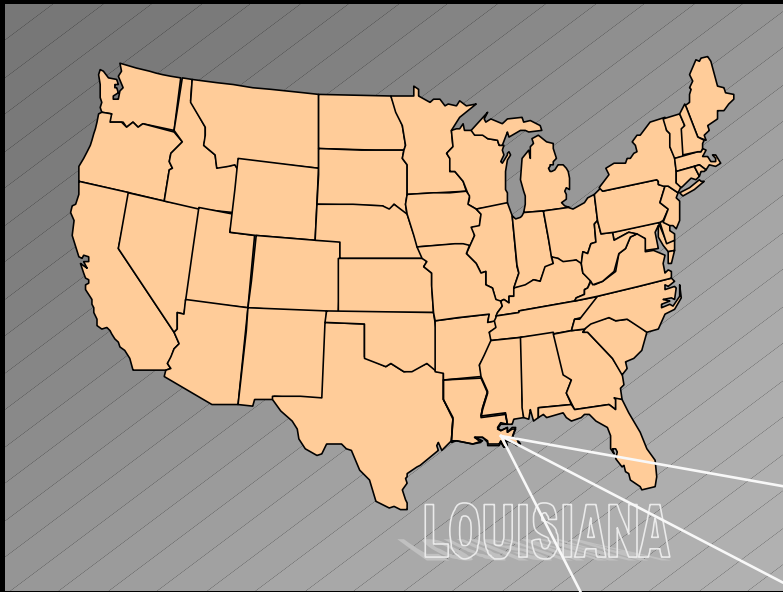
***Mark Wingate
Senior Project Manager
July 5, 2005***



Topics of Discussion

- Corps Assistance
 - Civil Works
 - CAP
- Project Description
 - Study Area
 - Existing Resources
 - Public Involvement
 - Feasibility Considerations
- Current status
 - FY05 Activities
 - What the public will see out at the lakes
- Where to next?
 - FY06 Activities
 - Senate Report
 - FY07 through Construction





Primary Civil Works Mission Areas

- Flood Control
- Navigation
- Eco-system Restoration

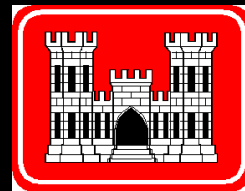


Primary Civil Works Mission Areas

- **Typically very large, study intensive projects**
 - 8-10 years and greater
- **Completed under General Investigations Program**
 - \$20M - \$Billions
 - EBR Flood Control \$180M (Construction anticipated 07)
- **Various percentage of funds at all four phases (Construction is typically 65%/35%)**
- **Construction is Congressionally Authorized**

Smaller Authorities

- Continuing Authorities Program
 - Smaller construction projects
 - Flood Control, Navigation, Environmental
 - Can do a variety of projects under CAP
 - 9 Sections (various project types)



CAP's 9 Sections

- ***Section 206 - Aquatic Ecosystem Restoration***

- **Section 205 - Flood Control**

- **Section 14 - Emergency Streambank and Shoreline Protection**

- **Section 208 - Snagging and Clearing for Flood Control**

- **Section 107 - Navigation**

- **Section 103 - Beach Erosion**

- **Section 111 - Mitigation of Shore Damage Attributable to Navigation Works**

- **Section 1135 - Project modifications for Improvement to the Environment**

- **Section 204 - Ecosystem Restoration Projects in**

Section 206

Aquatic Ecosystem Restoration

- **Cost Shared 65% Federal / 35% Non-federal**
- **Federal Limit of \$5 million (total project expenditure)**
 - **Yields a maximum project cost of \$7.7M**
- **Restore and enhance degraded aquatic ecosystems**
- **Letter of Intent from Sponsor is reqd.**

Section 206

Aquatic Ecosystem Restoration

4 Steps to Construction

- **Step 1: Preliminary Restoration Plan (PRP) , \$10,000**
 - **Approved February 2005**
 - **Available online under the Continuing Authorities Program project list**
<http://www.mvn.usace.army.mil/pd/projectslist/>
 - **Goodwood Library's reference desk**
 - **Government Documents Department desk at the LSU library**
- **Step 2: Feasibility Study - 24 months**
 - **Cost estimated at \$750,000**
 - **Initiated March 2005**
- **Step 3: Plans and Specs - 9-12 months**
- **Step 4: Construction**

Section 206

Aquatic Ecosystem Restoration

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Project Description

Study Area



Corporation Canal

City Park Lake
53-acres

Erie
26-acres

Crest Lake
9-acres

Campus Lake
8-acres

University Lake
195-acres

College Lake
4-acres

- Consider all previous work

Feasibility Considerations

- 1983 Dredging Activities
- Final Report of the University Lakes Restoration Project
- 1991 Final Report University Lakes Post-Restoration Continuing Monitoring Program
- 1991 Management Plan
- August 2000 Lakes District Master Plan
- others
- Assist in implementing project
- Public Involvement
 - Tonight's meeting
 - Future meetings

Potential Methods to restore the *Feasibility Considerations* **degraded University Lakes System**

- Increase water depth
- Stump and debris removal
- Aeration to increase dissolved oxygen levels
- Beneficial use of spoil (as allowable)
 - Base/foundation for future uses
 - Bank stabilization
 - Fish refuge
- Hydraulic and Hydrologic modifications
 - Control Structures
- Assimilation Techniques (vegetative plantings, wetlands, etc.)
- “Sedimentation” Basins (filter beds)
- Detention Facilities, Rerouting of runoff

Current Status

- Initiated Step 2 in March 2005; 24-month Feasibility Study
- Developed a Project Management Plan (PMP)
 - To determine study requirements, coordination, etc.
 - Detailed Scope of Work, with duration and costs
 - **Project Management** – plan formulation, public involvement, study management, budget prep, report prep, etc.
 - **Engineering** – perform all surveys, borings, H&H modeling, water quality analysis, design, and P&S
 - **Environmental** – prepare all NEPA documentation and coordination with state and Federal agencies
 - **Economics** – develop financial analysis, cost effectiveness, incremental cost analysis, and costs for various alternatives
 - **Real Estate** – obtain ROE, prepare cost estimates for study plans, prepare gross appraisal report, & prepare REP
 - **Operations** – participate in plan formulation
 - **Construction** – project input for feasibility study
- **Available online under the Continuing Authorities Program project list <http://www.mvn.usace.army.mil/pd/projectslist/>**

Current Status (continued)

- Currently – Preparing to run title on study area to determine owners
- Right of Entry requests
 - Obtain from Landowner(s)
- Upon receipt of ROE; Late 2005 - Engineering Surveys
 - Shoreline sections along Dalrymple Dr. (2000') for bank stabilization
 - Hydrographic cross-sections (29 each 36,000') for modeling
 - Topographic surveys at 4 proposed structure sites for design purposes
 - Control surveys (2 points) to obtain topographic info
 - Water Quality surveys to collect water and sediment samples
- Late 2005 - Soil Borings
 - Drill 4 undisturbed type (5") borings along the alignment of the project (total 275')
 - 3 borings will be 75-feet deep over land
 - 1 boring will be 50-feet deep over water

Where to Next?

- FY06
 - Continue the Feasibility Study
 - \$200,000 in the 06 Senate Report
- FY07
 - Complete the Feasibility Study
 - USACE Mississippi Valley Division – approval of feasibility report
- FY08
 - Initiate and complete Plans & Specifications
 - Negotiate and execute Project Cooperation Agreement (PCA)
 - 65% Fed; 35% non-Fed
- FY09
 - Advertise, bid, award construction contract
 - October 2008

Closing Remarks

- Call to Action
 - Landowners to support the ROE requests
 - To conduct surveys and soil borings in the lakes
- We have just begun Feasibility Study
 - No specific Corps of Engineers Plan
 - Hear from you